

1. Species II, Claims 12, DRICE with compressed air storage reservoir:

The DRICE will generate compressed air under Species I for alternate uses, therefore extending a convective communication conduit from the DRICE Claim 1 embodiment provides a source of compressed air without a compressed air storage tank. Claim 5 adds a compressed air reservoir, which is only one possible receiver of compressed air from the DRICE. Claim 12 is an alternate way of writing claim 1 and claim 5 in a single independent claim and therefore limited by Species I. The DRICE with a compressed air storage tank enables functional aspects for the DRICE in alternate uses, and modes of operation found in the Species I claims. This is accomplished by decoupling and assembling strokes and stroke sequences to allow such things as generating compressed air or generating a vacuum, or generation different power modes.

2. Species III, Claims 13, DRICE with suction

By dynamically altering or switching a cylinders stroke sequences, elements of the DRICE in Species I, the DRICE can provide a vacuum source. Species I claims the dynamic reconfiguration of cylinder states and stroke sequences. Claim 13 explicitly names a vacuum stroke sequence which provides a vacuum function, a subset of available functions and thus a narrower claim subtended by a broader function claimed in Species I. Species III embodiment is provided as a consequence and function of the DRICE under Species I with a programming change on stroke states providing a vacuum on a typical four-stroke sequence intake stroke but with all cylinder intake valve closed, all which is enabled by Species I, and directly limited to a DRICE.

3. Species IV, Claims 14, DRICE with activating valves

Claim 14 is a subset of species I. It is another embodiment of the invention with an added limitation, a third cylinder valve. The Species I embodiments containing 2 cylinder valves, provide another way to convect compressed air to a compressed air storage tank for alternate modes and uses. Again, this is only another embodiment of the invention under Species I, designed with an additional more limiting and therefore more costly cylinder valve. By the chair analogy, we have added a leg to the chair we have claimed previously.

4. Species V, Claims 15 - 20, DRICE

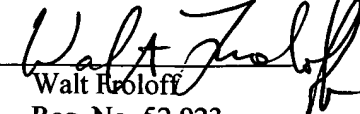
The primary use of a DRICE is for powering a vehicle, as that is the obvious and first use of engines. Species V claims methods of operating a DRICE and thus limited to the DRICE in Species I. Species V claims the modes of a DRICE coupled to a vehicle. This is another use of a DRICE, claimed in Species I, as an embodiment in a vehicle, which takes input from vehicle parameters in its programming to reconfigure the engine dynamically to provide strokes and stroke sequences resulting in modes of operation which are re-generative, power boosting or add utility otherwise available only by another and separate mechanism. The named modes of operation are Compression Start, Power, Boost Power, Compression Brake, Compressed air idle modes for the mobile vehicle embodiment, and thus subtended by Species I.

5. Species VI, Claims 21, Method for Controlling a DRICE

A DRICE is inherently programmable. Thus, as in (4.) directly above, the primary use of DRICE is for a vehicle, the foreseeable and anticipated use of an engine. Species VI claims a method of controlling a DRICE through a set of programmed modes of operation coupled to a vehicle powered by a DRICE. The modes named are Compression Start, Power, Boost Power, Compression Brake, Compressed air idle modes. These are all claimed in Species I. Species VI is an invention embodiment for a DRICE powered vehicle, and claims the modes and their operation in such an energy-regenerating vehicle, with the operating modes claimed in Species I claim 2.

If any matters can be resolved by telephone, Applicant requests that the Patent and Trademark Office call the Applicant at the telephone number listed below.

Respectfully submitted,

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